KARYOTYPE OF VERNONIA ÆMULANS VATKE (COMPOSITÆ)

L. S. GILL

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ABSTRACT : The karyotype for *Vernonia æmulans* Vatke, $2n = 20$, is presented.

RÉSUMÉ : Présentation du caryotype de *Vernonia æmulans* Vatke, $2n = 20$.

L.S. Gill, Department of Biology, University of Benin, Benin City, Nigeria.

Vernonia Schreb. is a tropical genus of about 1000 species (WILLIS, 1973) and in Tanzania, it is represented by about 58 species. *Vernonia æmulans* Vatke is a common weed of open waste places and roadsides particularly in the north-western parts of Tanzania. The purpose of this note is to put on record the karyotype of *V. æmulans* which has not been completely investigated before.

Fig. 1 & 2. — Chromosomes in root tip cell of **Vernonia æmulans** Vatke, $2n = 20$.

Seeds were collected in the field from Iringa in 1976 and were grown in the greenhouses of the University of Waterloo, Canada. Preparations were made by pretreating the roots with paradichlorobenzene for 2 hours, hydrolyzing them in N. HCl for 10 minutes at 60°C, washed with water, transferred to a solution of alcohol-HCl carmine (SNOW, 1963), for 2 hours, and subsequently squashing them in 1 % acetocarmine. Voucher specimen (*Gill 101*) is preserved at the herbarium of the University of Waterloo, Canada.

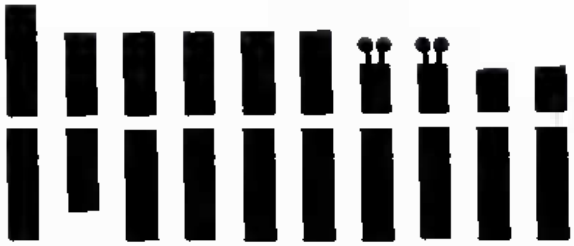

Fig. 3. — Idiogram of haploid Chromosome set for **Vernonia æmulans** Vatke.

The diploid somatic chromosome set, $2n = 20$ (fig. 1 & 2) is bimodal. It consists of 12 median and 8 submedian chromosomes. The submedian chromosomes comprise 4 « SAT » chromosomes. A haploid chromosome set is shown diagramatically in fig. 3. TURNER & LEWIS (1965) reported a haploid chromosome number of 10 from Africa and GILL (1978) also counted $n = 10$ with normal meiosis and pollen formation.

REFERENCES

GILL, L. S., 1978. — Chromosome Numbers of Angiosperms in Tanzania : II, *Adansonia*, ser. 2, 18 (1) : 19-24.

SNOW, R., 1963. — Alcoholic-hydrochloric acid-carmine as a stain for chromosomes in squash preparations, *Stain Techn.* 38 : 9.

TURNER, B. L. & LEWIS, W. H., 1965. — Chromosome Numbers in the Compositæ IX. African species, *Journ. S. Afr. Bot.* 31 : 207-217.

WILLIS, J. C., 1973. — *A Dictionary of the flowering plants and ferns*, ed. 8, Cambridge University Press, London.